

Application No.: 10/500,365

Docket No.: 22106-00065-US1

**AMENDMENTS TO THE DRAWINGS**

The drawings have been amended to clarify the invention. In particular, Figure 1 and Figure 2 have been labeled as "Background Art," as requested in the outstanding Office Action, and Figure 4 and Figure 5 have been added by way of the present amendment to show all the features specified in the claims. Figures 1, 2, 4 and 5 are enclosed herewith and labeled as replacement drawings.

Application No.: 10/500,365

Docket No.: 22106-00065-US1

**REMARKS**

Claims 9-18 remain pending in the above-identified patent application. Claims 1-8 have been canceled and new claims 9-18 have been added by way of the present amendment. Reconsideration is respectfully requested.

In the outstanding Office Action, the drawings were objected to under 37 C.F.R. § 1.83(a) and Figures 1-2 were indicated as needing a legend, such as "Prior Art"; claim 4 was rejected under 35 USC Section 112, 2<sup>nd</sup> paragraph; claims 1, 3-5 and 8 were rejected under 35 U.S.C. § 102(b) as being anticipated by Shinohara et al.; claims 1-5 and 7 were rejected under 35 U.S.C. § 102(e) as being anticipated by Attarian et al.; and claims 1-4 and 6 were rejected were rejected under 35 U.S.C. § 102(b) as being anticipated Bach et al.

***Drawing Objections***

The drawings were objected to under 37 C.F.R. § 1.83(a) and Figures 1-2 were indicated as needing a legend, such as "Prior Art." Applicants respectfully traverse the rejection.

In response to the above rejections, the drawings have been amended to clarify the invention. In particular, Figure 1 and Figure 2 have been labeled as "Background Art," as requested in the outstanding Office Action, and Figure 4 and Figure 5 have been added by way of the present amendment to show all the features specified in the claims.

Specifically, reference is made in Figure 4 and Figure 5 to a "Rogowsky Coil" and an "array of Hall sensors," respectively. Support for the amended drawings is provided by paragraph [0029] of the published application. Therefore, it is respectfully submitted that Figure 4 and Figure 5 raise no question of new matter and that every feature of the invention specified in the claims is shown.

Application No.: 10/500,365

Docket No.: 22106-00065-US1

***112 Rejections***

Claim 4 was rejected under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph. Claim 4 has been canceled by way of the present amendment. Therefore, the rejection is moot and it is respectfully requested that it be withdrawn.

***102 Rejections***

Claims 1, 3-5 and 8 were rejected under 35 U.S.C. § 102(b) as being anticipated by Shinohara et al. Applicants respectfully traverse the rejection.

New claims 9-18 have been added to clarify the invention. In particular, claim 9 includes the limitation:

said capacitive coupling arrangement uses said current measuring device as *a floating potential electrode* (emphasis added).

Support for the new claims is provided at least in original claims 1-3, 8 and in the description at paragraphs [0030]-[0031] of the published application. In addition, the subject matter of the new claims is substantially identical to that of the original claims. Therefore, it is respectfully submitted that the new claims raise no questions of new matter.

Applicant respectfully submits that the outstanding rejections are based on anticipation. "Anticipation under 35 U.S.C §102(e) requires that '*each and every element* as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.'" *In re Robertson*, 49 USPQ 1949, 1950 (Fed.Cir. 1999) (emphasis added).

In particular,

"[A]ll words in the claim must be considered in judging the patentability of the claim against the prior art." *In re Wilson*, 165 USPQ 494, 496 (CCPA 1970). As set forth in section 2111 of the MPEP, "claims are interpreted in the broadest reasonable fashion *consistent with the specification*" (emphasis added).

Application No.: 10/500,365

Docket No.: 22106-00065-US1

Moreover, the Patent and Trademark Office *is required* to take into account whatever enlightenment is afforded by the specification, *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ 2d 1023, 1027-28 (Fed. Cir. 1997) (emphasis added).

Shinohara et al. discloses a triple-probe plasma measuring apparatus, which comprises: a circuit for measuring electron temperature and electron density of a plasma with use of triple probes; a circuit for detecting and holding a floating potential difference; a differential voltage adding circuit; a fixed voltage source; and a change-over switch, the apparatus being capable of determining a difference in the floating potentials at the position of the probes, and superimposing the potential difference as found on the fixed voltage to thereby enable the floating potential to be automatically corrected.<sup>1</sup> In particular, Shinohara et al. discloses the measuring circuit 103 comprises an electron temperature measuring circuit 6, its indicating instrument 7, an electron density measuring circuit 8, its indicating instrument 9, and a fixed voltage power source 10.

However, Shinohara et al. nowhere discloses, as claim 9 recites: “said capacitive coupling arrangement uses said current measuring device as a floating potential electrode.” In addition, Shinohara et al. nowhere discloses, as recited in claim 9: “the voltage measuring device performs the measurement of the primary voltage through a capacitive coupling arrangement.” That is, in contrast to the claimed invention, Shinohara et al. discloses that the voltage measurements are performed by circuit 103, which is *not* comprised of the “capacitive coupling arrangement,” as recited in claim 9.

Moreover, Shinohara et al. relates to a measuring circuit and *not* to a “switch” as recited in claim 9, that further comprises “a primary switching device operating on a power line; and an electronic device unit that acquires from at least one of a current measuring device and a voltage measuring device signals indicative of primary current and primary voltage values.”

Therefore, it is respectfully submitted that Shinohara et al. does not disclose, anticipate or inherently teach the claimed invention and thus claim 9, and claims dependent thereon, patentably distinguish thereover.

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<sup>1</sup> Shinohara et al. at ABSTRACT and column 1, lines 43-55.

Application No.: 10/500,365

Docket No.: 22106-00065-US1

Claims 1-5 and 7 were rejected under 35 U.S.C. § 102(e) as being anticipated by Attarian et al. Applicants respectfully traverse the rejection.

However, Attarian et al. nowhere discloses, as claim 9 recites: "said capacitive coupling arrangement uses said current measuring device as a floating potential electrode." In addition, Attarian et al. nowhere discloses "current and voltage measuring devices are integrated within said switch," as recited in claim 9. Further, Attarian et al., nowhere disclose that the voltage measuring device performs the measurement of the primary voltage through a "capacitive coupling arrangement comprising said current measuring device," as recited in claim 9.

Therefore, it is respectfully submitted that Attarian et al. does not disclose, anticipate or inherently teach the claimed invention and thus claim 9, and claims dependent thereon, patentably distinguish thereover.

Claims 1-4 and 6 were rejected were rejected under 35 U.S.C. § 102(b) as being anticipated Bach et al. Applicants respectfully traverse the rejection.

Bach et al. discloses a current measuring device 15 that potentially utilizes Rogowski coils 26 as a secondary component of a transformer.<sup>2</sup>

However, Bach et al. nowhere discloses, as claim 9 recites: "said capacitive coupling arrangement uses said current measuring device as a floating potential electrode." In addition, Bach et al. does not disclose voltage measurements are performed or features for integrating the current and voltage measuring devices are present.

Therefore, it is respectfully submitted that Bach et al. does not disclose, anticipate or inherently teach the claimed invention and thus claim 9, and claims dependent thereon, patentably distinguish thereover.

### *Conclusions*

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

<sup>2</sup> Bach et al. at ABSTRACT and FIG. 7.

Application No.: 10/500,365

Docket No.: 22106-00065-US1

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 22-0185, under Order No. 22106-00065-US1 from which the undersigned is authorized to draw.

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Respectfully submitted,

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